

APPENDIX

FREE RANGE EGG UNITS - STATEMENT ON ODOURS (IAN BARRIE)

The nearest protected property will be 150m away from the nearest protected dwelling with further dwellings some 300 m away, all to the western quarter. My comments on odour issues are set out below.

A reasonable test, and one which features prominently in the discussion of Best Available Technology in IPPC H4 (Part 1) states :-

In summary, where there is potential for pollution in the form of offence to the sense of smell (i.e. where there is potential for reasonable cause for annoyance), the aim of BAT should be to achieve the following:

- *To keep the exposure to odour at sensitive receptors below the level at which it would give reasonable cause for annoyance. (This would normally be the aim of most planning or other conditions applied by Local Authorities).*
- *To prevent the generation of odour where possible.*
- *To contain the odour and use effective treatment techniques, or other means of minimising emissions, where prevention is not possible.*
- *To promote the use of good practices for the control of odour, including adequate maintenance and cleaning, storage, containment etc.*

In examining a case for "reasonable cause for annoyance" both the concentration and frequency of odours in the area of neighbouring dwellings has to be evaluated.

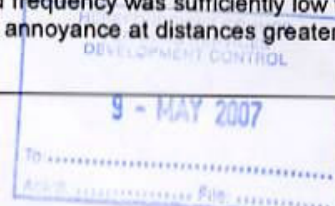
The frequency of odours is determined by local wind flow patterns. The unit is to the north east or east of the protected properties whereas the prevailing winds are from the south west. Therefore the dominant wind direction blows from the protected properties to the layers unit.

Computer dispersion modelling studies are normally employed to determine the strength or concentration of odours downwind from a source. With all else being equal, strong sources such as large broiler farms with 250-500k birds, will impact upon a larger area than small, free range, units.

Modelling studies have recently been completed for several such free range units (in connection with planning appeals). Odour emissions in free range units are associated with the floor litter and droppings stored within the building. Odour emissions from a properly managed ranging area are minimal and no worse than would be the case from a field with grazing cattle or sheep and thus are normally considered inconsequential.

In each case the dispersion modelling indicated that, while occasional odours may well be detected in the neighbouring area, the strength and frequency was sufficiently low to conclude that there would be no reasonable cause for annoyance at distances greater

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than some 50m from each unit. This conclusion was supported with visits to similar, existing free range units. The manure will be removed from the building every 55 weeks when the building is de-stocked and washed out.

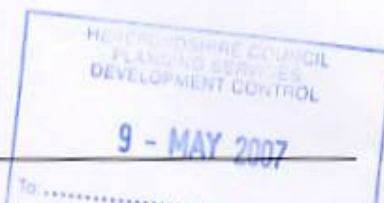
There are published guidelines for best management practice which are appended to this report. Following these guidelines, and taking particular regard to the current wind directions, should significantly mitigate against a nuisance to neighbours during cleaning operations between crops of hens.

No absolute guarantee can be given with regard to odour nuisance at short distances, even from an industry standard free range unit. However, in following accepted guidelines on odour control and management, the probability that odours from a free range laying unit will give rise to a reasonable cause for annoyance at distances in excess of 100m can be reduced to very low levels.

References

1. MAFF (1998) Code of Good Agricultural Practice for the Protection of Air.
2. Environment Agency IPPC-H4 (Draft). Horizontal Guidance for Odour Part 1 : Regulation and Permitting and Part 2 : Assessment and Control.

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APPENDIX 1

Cleaning Out Manure/Droppings - Odour Mitigation Measures

- A dry (moisture content less than ~ 35%), friable floor litter reduces the potential odour emissions during mucking out, as well as throughout the laying cycle.
- Avoid clearing spent floor litter during weekends, public holidays or in the evening unless it is absolutely necessary.
- Avoid clearing if the wind direction is blowing in the direction of near neighbours if at all possible.
- Once started the clearing process should be completed in as little time as possible while taking account of the above recommended restrictions.
- Maintain minimal fan ventilation during cleaning, while remaining consistent with health and safety requirements of the cleaning personnel.
- If an elevator is used for loading litter into lorries the drop height should be minimised and the elevator can be covered, thus removing the risk of dust blowing on windy days.
- If a loader vehicle is used, litter should be carefully tipped into lorry trailers, positioned at the entrance to each house, or if possible inside the building.
- The litter should be tipped into the trailer from minimal height and when full, the trailer should be covered and sealed immediately.
- Surrounding concrete aprons and surfaces should be cleaned immediately after clearing.
- Only DEFRA approved, non-tainting disinfectants should be used during the clean-out of the houses.
- Dirty water should be transported off-site and ultimately be disposed of, or field spread, in accordance with the guidelines in the Air Code.

